

# Math125A, Fall 2001

**Course description.** Propositional and Predicate Logic. Tarski's definition of truth in a first-order structure, with an analysis of the expressive power of first-order definability. Gödel's Completeness Theorem, that if a sentence  $A$  is true in every model of a collection of axioms  $T$ , then there is a proof of  $A$  from  $T$ . Other topics, as time permits.

**Instructor.** Theodore A. Slaman, 719 Evans Hall.

**Office Hours.** 1:00–3:00 Tuesday.

**Class meeting times.** 11:00–12:30 TTh, 85 Evans.

**Textbook.** We will use in class handouts in place of a textbook. For extra reading, consult **Mathematical Logic**, by Ebbinghaus, Flum, and Thomas or **A Mathematical Introduction to Logic**, by Enderton.

**Homework.** Homework will be assigned regularly, and it will be collected once every two to three weeks.

**Exam schedule.** The midterm will be held in class during the eighth week. The final exam will be held during finals week.

**Grading.** The course grade will be computed as the higher of the following two weighted averages

- **Test Grade.** Midterm grade 40% and Final grade 60%.
- **Test and Homework Grade.** Midterm grade 30%, Final grade 45%, and Homework 25%.

**Course web site.** Course information and homework assignments will be available online by following the *courses* link from the following webpage.

<http://math.berkeley.edu/~slaman>